

Apr. 1908. *Adopted co-ordinates of Bombay Observatory.* 487

Star's Name.	R.A.	S. Dec.	P.A.	Distance.	Mags.	Nights.	Date.
	h m	°		"			1907.
<i>h</i> 1381	19 12	16 10	195.7	4.95	8.1 8.3	2	.698
<i>β</i> 142	19 22	12 21	342.6	1.60	8 8	3	.698
Ho. 462	20 59	11 29	218.5	2.55	9 9½	3	.832
<i>h</i> 5252	21 7	15 25	318.2	3.02	8 8½	2	.832
C. G. C. 29,658	21 35	18 53	66.0	5.00	8 9.4	2	.846
<i>η</i> Piscis Australis	21 55	28 56	116.3	1.74	6 6½	5	.868
See 470	22 5	24 5	36.8	1.66	8 9	4	.868
S 808	22 19	20 52	151.8	7.00	7 8.3	2	.797
53 Aquarii	22 21	17 15	310.8	6.80	6½ 6¾	2	.797
<i>ζ</i> Aquarii	22 24	0 32	315.2	3.05	4.5 4.6	4	.832
<i>μ</i> N 117	22 34	28 52	64.3	3.04	7¾ 8½	2	.871
<i>γ</i> Piscis Australis	22 47	33 24	266.4	3.56	4½ 8¾	2	.871
<i>Σ</i> 3008	23 19	9 1	235.8	3.60	7½ 8½	2	.871
<i>ι</i> 2 Aquarii	23 41	19 14	137.8	5.90	5½ 7	2	.928
B.A.C. 8308	23 49	27 36	269.3	6.90	6¾ 7½	2	.950
<i>Σ</i> 3046	23 51	10 03	252.7	3.18	8¾ 9½	3	.950

Shanghai :
1907 December 31

Note on the adopted co-ordinates of the Bombay (Colaba) Observatory. By A. M. W. Downing, D.Sc., F.R.S.

It may be desirable to point out that the relatively large change in the position of the Colaba Observatory, as given in the *Nautical Almanac* for 1909 and following years, from that given in the *Nautical Almanac* for 1896–1908 inclusive, arises from the large difference existing in that part of India between the geodetic and astronomical co-ordinates. I am indebted to the courtesy of the Headquarters Staff of the Trigonometrical Branch of the Survey of India for the following particulars as to the position of the Colaba Observatory :—

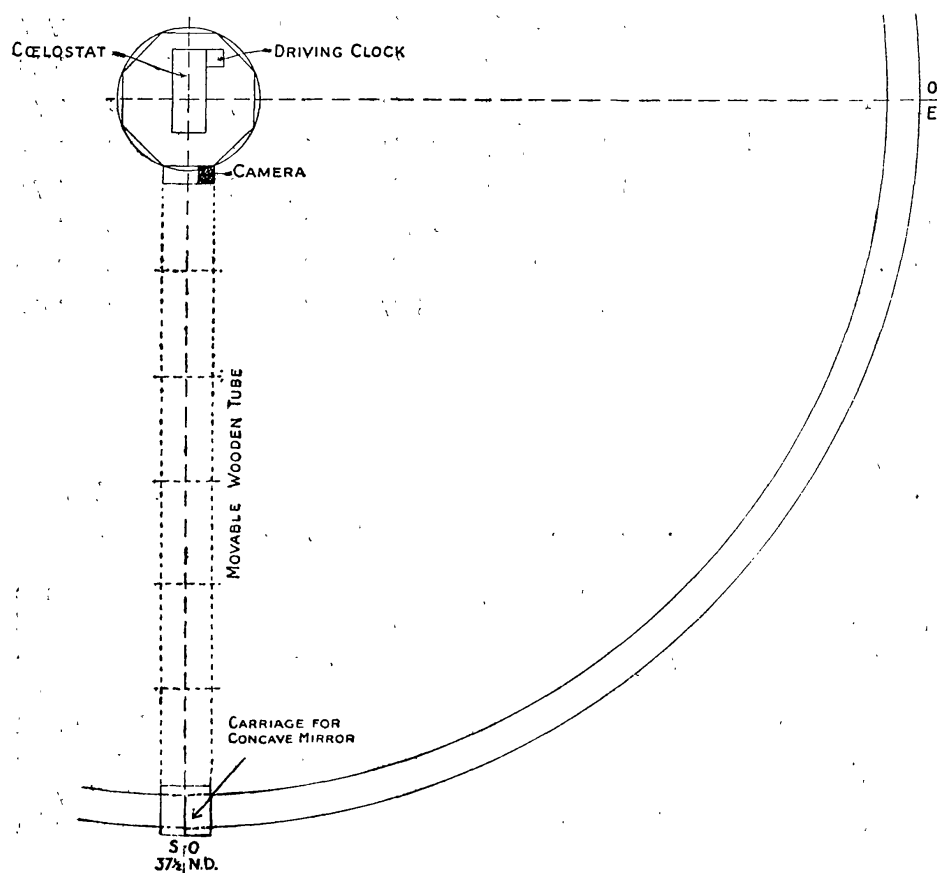
	Astronomical.	Geodetic.
Latitude,	18° 53' 36" 18 N.	18° 53' 46" 51 N.
Longitude,	4 ^h 51 ^m 15 ^s .72 E.	4 ^h 51 ^m 15 ^s .15 E.

It will thus be seen that the quantities given in the *Nautical Almanac* for 1909 and onwards are the astronomical latitude and the geodetic longitude. On the other hand, up to and including the current year, the quantities given are the geodetic latitude and the astronomical longitude; the values of these co-ordinates given above being later, and presumably more accurate, than those communicated to me in 1892, and which appear in the *Nautical Almanac* for the years specified.

Description of a 24-inch long-focus Cœlostæt Reflector.

By J. H. Reynolds.

The idea of mounting a long-focus reflector in conjunction with a cœlostæt was mentioned by Dr. Common in 1900, and it has been successfully carried out at Mount Wilson with the Snow telescope for spectroheliographic work. The present instrument is intended for use with a spectroheliograph which is in course of construction, but it is also arranged for photographing the Moon and planets, and



the brighter star clusters and nebulae. For several reasons it was found advisable to keep the focal length within moderate limits; the concave mirror has therefore been made with a focal length of 38 ft., an enlarging lens being used when a greater scale is required.

The cœlostæt is mounted in an octagonal wooden house, which revolves so as to face the various azimuths required; the roof revolves separately, and has a large opening covered with hinged shutters. The plane mirror, which is 28 in. in diameter, is furnished with a slow motion at right angles to the polar axis; this is very useful for getting the object in the centre of the field, and is practically indispensable for lunar work.